

GAO

Briefing Report to the Chairman,
Subcommittee on Oversight and
Investigations, Committee on Energy and
Commerce, House of Representatives

March 1989

PESTICIDES

Economic Research Service's Analyses of Proposed EPA Actions





United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-233953

March 14, 1989

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

In your June 17, 1988, letter, you asked us to review how and to what extent the Economic Research Service, U.S. Department of Agriculture (USDA), has used the funds earmarked for analysis of any Environmental Protection Agency (EPA) proposed action affecting food production and the agricultural economy. For pesticide regulatory proposals, EPA is to notify USDA, which may comment on the proposals and EPA's related analyses of agricultural impact before the proposals are finalized. The Economic Research Service (ERS) is one of eight USDA agencies that can be involved in analyzing EPA's proposed actions. Since fiscal year 1973, appropriations acts have made at least \$200,000 available annually to ERS for such analyses.

On the basis of your letter, our main objectives were to (1) determine how and by whom the ERS analyses were conducted, (2) gather data on ERS' costs of analyzing EPA proposals and the specific purposes the funds were used for, (3) ascertain how many EPA proposals ERS analyzed or commented on, and (4) determine what impact the ERS analyses and comments had on EPA. Our review focused primarily on activities during fiscal years 1985 through 1988 and on ERS' analyses of EPA proposals to change or cancel pesticide registrations. We did not review the quality of ERS' analytical work or the precise impact on EPA of ERS activities other than those related to specific EPA pesticide proposals. We briefed your Counsel on the results of our work on November 14, 1988. The results are summarized below and described in more detail in the body.

In summary, we found that:

-- ERS' analyses of EPA pesticide regulatory proposals, which include EPA's analyses of the proposals' impact on

the agricultural economy, are carried out as part of USDA's National Agricultural Pesticide Impact Assessment Program (NAPIAP). Other ERS work related to EPA activities includes self-initiated studies not directly related to specific EPA proposals and responses to EPA on pesticides, water quality, and nonpesticide proposals affecting agriculture.

USDA uses NAPIAP to make pesticide benefit assessments, if such assessments are determined to be necessary, and to coordinate its comments on EPA proposals affecting agriculture. Depending on the pesticide involved, NAPIAP assembles assessment teams made up of crop scientists and specialists from the USDA agencies, including ERS, and from state land grant universities, extension services, and departments of agriculture. The teams develop and analyze pesticide use information and assess the impacts of pesticide regulations on agricultural and environmental issues. ERS participates in the assessments by evaluating the proposals' potential economic impact on producers and consumers.

- ERS estimated that, for fiscal years 1985 through 1988, its expenditures relating to EPA proposals ranged from \$550,000 to \$650,000 annually and totaled \$2.4 million. According to ERS, its estimates represent expenditures associated with database development, economic modeling, and analyses related to EPA proposals.
- During fiscal years 1985 through 1988, EPA notified USDA of 15 pesticides whose registrations EPA was proposing to change or cancel. NAPIAP provided written comments to EPA on all 15 proposals. ERS provided written comments for NAPIAP's consideration for 7 of the 15 pesticides. ERS officials said that ERS did not respond to the EPA proposals on some pesticides because either the pesticides were not important to agriculture or ERS did not conduct an analysis because no NAPIAP assessment team was assembled.
- According to EPA officials, ERS/NAPIAP had limited impact on the EPA proposals for three of the four pesticides we reviewed in detail and on which ERS had provided comments. They said that ERS/NAPIAP provided some useful comments on the three pesticides, but limited analytical effort. For the other pesticide, they said that ERS/NAPIAP contributed valuable and timely data.

On a broader scale, an EPA official said that although the overall quality of NAPIAP analyses or studies has been uneven, his sense was that ERS analysts have objectively and vigorously analyzed issues before them. He also said that EPA and ERS employees regularly communicate informally on pesticide and other matters and that not all ERS contributions to EPA are documented.

VIEWS OF AGENCY OFFICIALS

USDA and EPA officials reviewed drafts of this briefing report. However, as agreed with your office, we did not obtain formal agency comments. ERS officials and USDA's NAPIAP Coordinator expressed concern that our review focused on EPA pesticide proposals and did not fully consider ERS' impact on EPA proposals in other areas, such as water quality and nonpesticide proposals. The USDA officials also said that they believed that ERS' analyses and comments have been more useful to EPA than the draft report indicated and that ERS' analyses have had a significant impact on the pesticide regulatory process. The USDA officials, as well as the EPA officials, also suggested technical changes. We revised the report to more precisely state the focus of our review and incorporated the technical changes where appropriate.

SCOPE AND METHODOLOGY

We obtained the information for this briefing report by gathering documentation and interviewing officials at USDA and EPA headquarters in Washington, D.C. The principal officials we talked with were from ERS and NAPIAP at USDA and the Office of Pesticide Programs at EPA. We also reviewed files maintained by the NAPIAP Coordinator and EPA's Office of Pesticide Programs. Our review of ERS' impact on EPA focused on the four pesticides for which ERS told us it had provided written comments for NAPIAP's consideration in responding to EPA. In subsequently reviewing the NAPIAP Coordinator's files, we noted that ERS had provided written comments for NAPIAP's consideration on three additional pesticides. Because we already had completed the bulk of our review and had obtained EPA officials' comments on the four selected pesticides and on ERS/NAPIAP's impact on EPA generally, we did not review in detail ERS' impact on EPA for these three additional pesticides. We performed our work primarily between July and November 1988, with updates as appropriate through February 10, 1989.

B-233953

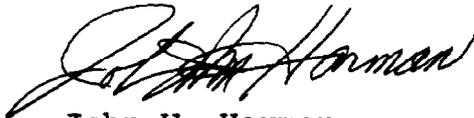
More details on the objectives, scope, and methodology of our review are in section 1. Sections 2 and 3 provide additional information on EPA pesticide responsibilities and USDA responsibilities relating to EPA proposals, respectively. Section 4 provides ERS/NAPIAP and EPA staffing and budget data. Section 5 presents further details on ERS/NAPIAP's impact on EPA actions, our observations, and agency officials' views.

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As arranged with your office, unless you publicly announce the contents earlier, we plan no further distribution of this briefing report until 30 days from the date of this letter. At that time, we will send copies of this report to various committees, subcommittees, and Members of Congress; the Secretary of Agriculture; the Administrator of EPA; the Administrator of ERS; and other USDA and EPA officials. Copies will be made available to others on request.

Major contributors to this briefing report are listed in appendix I.

Sincerely yours,



John W. Harman
Director, Food and
Agriculture Issues

CONTENTS

	<u>Page</u>
LETTER	1
SECTION	
1	INTRODUCTION 7
	Summary 7
	Pesticide Registration Authority 8
	ERS Appropriation Language 8
	EPA and USDA Involvement With Pesticide Benefit Assessments 9
	Objectives, Scope, and Methodology 9
2	EPA RESPONSIBILITIES UNDER FIFRA 12
	Summary 12
	Statutory Provisions 13
	EPA Special Review Process 14
3	USDA RESPONSIBILITIES RELATING TO EPA PROPOSALS 16
	Summary 16
	National Agricultural Pesticide Impact Assessment Program 17
	ERS' Review of EPA Proposals 18
4	USDA AND EPA PESTICIDE STAFFING AND BUDGET 20
	Summary 20
	NAPIAP Budget 21
	ERS Staffing and Budget Used to Analyze EPA Proposals 21
	EPA Pesticide Staffing and Budget 22
5	ERS/NAPIAP IMPACT ON EPA ACTIONS 23
	Summary 23
	ERS Inputs for Selected EPA Proposals 24
	ERS/NAPIAP's Overall Contributions to EPA's Special Review Process 24
	Impact on EPA of ERS/NAPIAP's Contributions 26
	Observations 27
	Views of Agency Officials 27
APPENDIX	
I	MAJOR CONTRIBUTORS TO THIS BRIEFING REPORT 28

TABLE

4.1	Fiscal Year 1988 Expenditures of USDA's NAPIAP	2
4.2	ERS' Estimated Expenditures Relating to EPA Proposals, Fiscal Years 1985-88	2

ABBREVIATIONS

EPA	Environmental Protection Agency
ERS	Economic Research Service
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
GAO	General Accounting Office
NAPIAP	National Agricultural Pesticide Impact Assessment Program
OPP	Office of Pesticide Programs
PD	Position Document
USDA	U.S. Department of Agriculture

SECTION 1

INTRODUCTION

SUMMARY

In 1970, the U.S. Department of Agriculture's (USDA) pesticide registration authority was transferred to the newly established Environmental Protection Agency (EPA).

Beginning in fiscal year 1972 through fiscal year 1988, annual appropriations language required USDA (in fiscal year 1972) or its Economic Research Service (ERS) (from fiscal year 1973 on) to use not less than \$200,000 to analyze proposed EPA actions affecting food production and the agricultural economy. The amount was increased to \$500,000 for fiscal year 1989.

On June 17, 1988, the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, asked us to review ERS' use of the funds earmarked for analysis of EPA proposals.

On the basis of the Chairman's letter, the main objectives of our review were as follows:

- determine how and by whom the ERS analyses were conducted,
- gather data on ERS' costs of analyzing EPA proposals and the specific purposes the funds were used for,
- ascertain how many EPA proposals ERS analyzed or commented on, and
- determine what impact the ERS analyses and comments had on EPA.

PESTICIDE REGISTRATION AUTHORITY

On December 2, 1970, USDA's pesticide registration authority was transferred to EPA pursuant to Reorganization Plan No. 3 of 1970, which established EPA. About 360 full-time and 65 part-time positions were transferred from USDA to EPA, along with funding of \$6.1 million on an annual basis. Subsequently, congressional concern was raised (1) about the way EPA was implementing the authority and (2) that EPA might establish pesticide regulations without adequately considering the regulations' economic impact on food production and the agricultural economy. The Congress addressed this concern with several laws, including the annual USDA appropriations acts since fiscal year 1972 and amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. 136 et seq.), which is discussed in section 2.

ERS APPROPRIATION LANGUAGE

In June 1971, the House Appropriations Committee's report on USDA's fiscal year 1972 appropriations bill (H.R. Rep. No. 92-289) directed that \$200,000 for the Office of the Secretary of Agriculture be used to assess the economic impact on the production of food and on the agricultural economy of any action pending before the Administrator of EPA. The Committee took this action "to assure that the resources of the Department of Agriculture are fully used to aid this new agency [EPA] in carrying out its great responsibility."

The Senate Appropriations Committee concurred with the House, and the fiscal year 1972 appropriations act (P.L. 92-73) provided \$200,000 for the Office of the Secretary of Agriculture for review of proposed EPA actions.

During House hearings on USDA's fiscal year 1973 appropriations bill, the Secretary of Agriculture asked that the \$200,000 be appropriated directly to ERS. The Committee granted the Secretary's request. The Senate Committee, which concurred, also proposed that ERS continue this work on a permanent basis.

The 1973 appropriations act (P.L. 92-399) stated that

". . . not less than \$200,000 shall be available for investigation, determination, and finding as to the effect upon the production of food and upon the agricultural economy of any proposed action affecting such subject matter pending before the Administrator of the Environmental Protection Agency for presentation in the public interest, before said Administrator, other agencies or before the courts:"

This language has been used annually since then, except that the amount was increased to \$500,000 for fiscal year 1989. ERS' total appropriation for fiscal year 1989 is \$49,336,000.

EPA AND USDA INVOLVEMENT WITH PESTICIDE BENEFIT ASSESSMENTS

When EPA began in the early 1970s to prepare benefit assessments on pesticides for which it was considering registration changes or cancellation, it prepared the assessments without USDA involvement. Between 1972 and 1976, USDA's principal role was to monitor EPA proposals and participate, as a witness, at EPA administrative hearings. However, in 1977, EPA began to use USDA as part of joint USDA/state/EPA pesticide benefit assessment teams. A Memorandum of Understanding between EPA and USDA to accomplish this was completed in December 1976.

According to the Chief of the Economic Analysis Branch of EPA's Office of Pesticide Programs, USDA was to devote about \$7.5 million annually, beginning in 1977, to assist EPA in the pesticide benefit assessment area through a new program called the National Agricultural Pesticide Impact Assessment Program (NAPIAP).

EPA officials told us that the USDA/state/EPA pesticide benefit assessment teams were used from about 1977 to the early 1980s, but that problems existed relating to both assessment report content and timeliness. During this time, USDA had lead responsibility for the pesticide benefit assessment teams and assessment reports. Thus, the reports reflected primarily USDA's perspectives and, according to the EPA officials, often overly defended the continued use of the pesticides. The EPA officials also said that the reports often contained less than objective or fully supportable findings. The officials added that in many cases, the reports could not be used as a basis for EPA action and were redone or replaced by EPA's own work. In addition, the officials said that it was difficult to get everyone--USDA, state participants, and EPA--to agree on the contents of the assessment reports. The last joint USDA/state/EPA pesticide benefit assessment report was issued in August 1984.

Pesticide usage data are very important in preparing pesticide benefit analyses. To avoid duplication of data gathering, USDA and EPA, at the request of the Office of Management and Budget, worked out an arrangement in 1980 to share responsibility for data gathering and access. USDA is responsible for farm/rural sites, and EPA is responsible for urban/nonfarm sites.

OBJECTIVES, SCOPE, AND METHODOLOGY

On June 17, 1988, the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, asked us to review how and to what extent ERS had used the funds earmarked for

analysis of any EPA proposed action affecting food production and the agricultural economy. Additionally, the Chairman was interested in how and by whom ERS analyses were conducted and what impact the analyses had on EPA.

On the basis of the Chairman's letter, our main objectives were as follows:

- determine how and by whom the ERS analyses were conducted,
- gather data on ERS' costs of analyzing EPA proposals and the specific purposes the funds were used for,
- ascertain how many EPA proposals ERS analyzed or commented on, and
- determine what impact the ERS analyses and comments had on EPA.

In meeting these objectives, we focused our review primarily on activities occurring during fiscal years 1985 through 1988 and on ERS' analyses of EPA proposals to change or cancel pesticide registrations. We gathered documentation and interviewed officials at USDA and EPA headquarters in Washington, D.C. The principal officials we talked with were from ERS and NAPIAP at USDA and the Office of Pesticide Programs at EPA. Because ERS' work relating to analysis of EPA proposals is carried out as part of USDA's NAPIAP, a discussion of ERS' contributions and impact on EPA necessarily includes NAPIAP.

To determine how and by whom the ERS analyses were conducted, we met with the Associate Director of ERS' Resources and Technology Division to discuss the procedures and methodology ERS has established relating to analysis of EPA proposals.

We obtained data from ERS on its costs of analyzing EPA proposals and the specific purposes the funds were used for. We also obtained data on fiscal year 1988 costs relating to (1) NAPIAP from USDA's Office of Budget and Program Analysis and (2) EPA's Office of Pesticide Programs from its Program Management and Support Division.

To ascertain how many EPA proposals ERS analyzed or commented on, we asked the Associate Director of ERS' Resources and Technology Division to prepare a list of the types and number of analyses and comments ERS had prepared from fiscal year 1985 through August 1988 relating to EPA proposals. We selected for detailed review all four pesticides on which, according to the Associate Director, ERS had provided written comments for NAPIAP's consideration in responding to EPA--primarily to determine what specific analyses or comments ERS/NAPIAP provided to EPA and what

impact they had on EPA.¹ EPA considered changing or canceling the registrations for these four pesticides. We did not review ERS/NAPIAP's contributions to other EPA activities, including water quality and nonpesticide regulations affecting agriculture, nor did we review the quality of ERS' analytical work.

To determine what impact the ERS analyses and comments had on EPA, we met with the Chief of the Economic Analysis Branch of EPA's Office of Pesticide Programs and the lead analysts for the pesticides within the Branch to discuss how ERS/NAPIAP's contributions had affected EPA actions for each of the four pesticides we selected for detailed review. For each pesticide, we also reviewed (1) the NAPIAP Coordinator's files and identified the written documentation pertaining to ERS and (2) the EPA Office of Pesticide Programs' files and identified the written documentation from ERS/NAPIAP.

We made our review primarily from July through November 1988, with updates as appropriate through February 10, 1989.

¹In reviewing the NAPIAP Coordinator's files later, we noted that ERS had provided written comments for NAPIAP's consideration on three additional pesticides. Because we had already completed the bulk of our review and EPA officials had already provided comments covering the four selected pesticides and ERS/NAPIAP's impact on EPA generally, we did not review in detail ERS' impact on EPA for these three additional pesticides.

SECTION 2

EPA RESPONSIBILITIES UNDER FIFRA

SUMMARY

The Federal Insecticide, Fungicide, and Rodenticide Act, as amended,

- requires EPA to regulate all pesticide products through review of the risks and benefits of the uses of these products;
- requires EPA, when proposing to change or cancel a pesticide's registration, to prepare an analysis of the pesticide's risks and benefits and the proposal's impact on agriculture and retail food prices;
- requires EPA to notify USDA whenever EPA is considering changing or canceling a pesticide's registration or proposing new pesticide regulations;
- allows (but does not require) USDA to comment on proposed EPA pesticide regulations and related analyses before they are finalized; and
- requires EPA to respond in the Federal Register to USDA's written comments.

STATUTORY PROVISIONS

The Federal Insecticide, Fungicide, and Rodenticide Act, as amended, requires EPA to regulate all pesticide products through review of the risks and benefits of the uses of these products. EPA's decisions relating to pesticide registrations must take into account the economic, social, and environmental costs and benefits of the use of the pesticide.

Sections 6 and 25 of FIFRA require EPA to notify USDA of certain EPA regulatory proposals that have an effect on agricultural interests. Section 6 requires EPA to notify USDA before EPA initiates an action to change or cancel a pesticide's registration. This provision was added in 1975 in response to congressional concern that EPA had not always adequately considered the impact of its actions on agriculture. Section 25, which was added at the same time, requires EPA to notify USDA before EPA proposes new regulations relating to pesticides.¹

Pesticide Registration Changes and Cancellations

Section 6 of FIFRA provides that if it appears to EPA that a pesticide or its labeling does not comply with FIFRA provisions or generally causes unreasonable adverse effects to human health or the environment, EPA may issue a notice of intent either to (1) cancel the pesticide's registration or change its classification together with the reasons or (2) hold a hearing to determine whether to cancel or change the classification.

In determining whether to issue such a notice, EPA is required to take into account the impact of the proposed action on production and prices of agricultural commodities, retail food prices, and the agricultural economy.

EPA is to provide USDA with a copy of the notice and EPA's analysis of the impact on the agricultural economy. If USDA comments within 30 days, EPA is required to include in the Federal Register USDA's comments and EPA's response.

If EPA subsequently decides to take any final action, it must again take into account the impact of the action on production and prices of agricultural commodities, retail food prices, and the

¹EPA is also required to submit notices of its proposed actions to a Scientific Advisory Panel for comment on the proposal's impact on health and the environment. The Panel's members are appointed by the EPA Administrator from persons nominated by the National Institutes of Health and the National Science Foundation.

agricultural economy, and it has to publish an analysis of such impact in the Federal Register.

EPA Pesticide Regulations

Pursuant to section 25 of FIFRA, EPA is authorized to prescribe regulations to carry out FIFRA provisions. However, EPA must solicit USDA's views before signing either proposed or final regulations relating to pesticides.

For proposed regulations, EPA is to provide USDA with a copy of the regulations at least 60 days before signing the proposed regulations for publication in the Federal Register. If USDA provides written comments to EPA within 30 days after receiving the proposed regulations, EPA has to publish in the Federal Register (1) the proposed regulations, (2) USDA's comments, and (3) EPA's response to USDA's comments.

For final regulations, EPA is required to provide USDA with a copy of the regulations at least 30 days before signing the regulations. If USDA comments in writing to EPA within 15 days, EPA has to publish in the Federal Register (1) the final regulations, (2) USDA's comments--if requested by USDA, and (3) EPA's response to USDA's comments.

EPA SPECIAL REVIEW PROCESS

EPA handles pesticide registration changes and cancellations under section 6 of FIFRA through its "special review" process. This process is intended to (1) help EPA determine whether to change or cancel the registration of a pesticide product because its use may cause unreasonable adverse effects to human health or the environment and (2) ensure that EPA assesses the risks and benefits of a pesticide in an open and responsive manner.

If EPA decides that a risk exists, it issues a Notice of Special Review in the Federal Register and invites all interested persons to submit information concerning the risks and benefits of the pesticide. EPA describes its basis for initiating a special review in a Special Review Position Document (PD) 1. This document provides EPA's preliminary analysis of the risks (and sometimes the benefits) of the pesticide and requests interested parties to submit other data on the pesticide's risks and to provide comments on benefits by a specified date.

After the comment period closes on a PD 1, EPA generally prepares a Notice of Preliminary Determination (called PD 2/3). The PD 2/3 provides information on hazards, exposures, risks, benefits, regulatory options, and EPA's proposed regulatory decision. The PD 2/3 includes a statement that EPA is requesting comments from USDA on the notice and on EPA's agricultural impact assessment analyzing the proposed action's impact on production and

prices of agricultural commodities, retail food prices, and the agricultural economy. When the PD 2/3 is signed, EPA formally transmits a copy to USDA for its comments.

After the specified comment period closes on a PD 2/3, EPA prepares a Notice of Final Determination (called PD 4) which includes discussions of the reasons for the final determination, any comments submitted by USDA, and EPA's response to those comments.

Under certain circumstances, EPA may combine the steps, such as issuing a PD 1/2/3 when it has sufficient information on risks and benefits to enable it to propose a decision on the pesticide.

SECTION 3

USDA RESPONSIBILITIES RELATING TO EPA PROPOSALS

SUMMARY

USDA uses NAPIAP to conduct pesticide benefit assessments, if such assessments are determined to be necessary, and to coordinate its comments on EPA pesticide proposals that affect agriculture.

Depending on the pesticide involved, NAPIAP uses teams of crop scientists and specialists from eight USDA agencies and from state land grant universities, extension services, and departments of agriculture.

ERS, as part of NAPIAP benefit assessment teams, evaluates the economic impact of and comments on EPA pesticide proposals.

In addition, ERS prepares responses to EPA regarding water quality or other nonpesticide proposals affecting agriculture and, through USDA's National Agricultural Statistics Service, collects data on pesticide use.

Although consumers and consumer groups are not directly involved in ERS economic analyses, ERS considers the impacts of EPA's proposals on consumer prices and on quality and quantity of foods.

NATIONAL AGRICULTURAL PESTICIDE
IMPACT ASSESSMENT PROGRAM

USDA uses NAPIAP to conduct pesticide benefit assessments and to review and comment on proposed EPA pesticide registration changes or cancellations, regulations, and related analyses that affect agricultural interests before EPA takes final action. NAPIAP, which was established in 1976, provides a means for managing and coordinating the activities of USDA and state land grant universities, extension services, and departments of agriculture in assessing pesticide benefits.

NAPIAP pesticide benefit assessments, when determined to be necessary, are conducted by teams of crop scientists and specialists from states and USDA. These teams develop and analyze pesticide use information and assess the impacts of pesticide regulations on agricultural productivity, aggregate supply of agricultural products, product prices, and environmental issues. The NAPIAP pesticide biological and economic assessment reports are provided to EPA for its use. These reports, which may include information on exposure and risks, are also the basis for preparing USDA's response to EPA proposals.

Depending on the pesticide involved, a NAPIAP team may use personnel from one or more of the following eight USDA agencies:

- Animal and Plant Health Inspection Service,
- Agricultural Research Service,
- Cooperative State Research Service,
- Economic Research Service,
- Extension Service,
- Foreign Agricultural Service,
- Forest Service, and
- Soil Conservation Service.

NAPIAP Components

NAPIAP components include a Steering Committee, a Technical Advisory Group, a Pesticide Assessment Coordinator, four Regional Coordinators, and State Liaison Representatives.

The Steering Committee members include the heads of the eight USDA agencies or their designated representatives and representatives from USDA's Office of General Counsel. The

Committee makes all policy decisions on NAPIAP's organization and functioning.

The Committee is served by a Technical Advisory Group composed of representatives named by member agencies. The Technical Advisory Group, which is coordinated and chaired by USDA's Pesticide Assessment Coordinator, provides for NAPIAP's day-to-day management and coordination. It reviews all assessment reports and other program outputs, EPA position documents, and proposed registration and policy documents and makes policy recommendations to the Steering Committee. The Group also determines which pesticides, pesticide uses, and commodities require assessment by USDA and prepares draft responses to EPA's proposed actions.

The Pesticide Assessment Coordinator coordinates the day-to-day management of NAPIAP. With the Technical Advisory Group's consensus, the Coordinator responds on USDA's behalf to EPA's proposed regulations. The Coordinator serves as the principal contact between USDA and EPA on matters relating to NAPIAP and other EPA regulatory actions.

The four Regional Coordinators, who are state employees, coordinate NAPIAP research efforts in the states within their respective regions. They work with states to furnish pesticide data and to provide comments on regulatory issues as requested by the Technical Advisory Group.

State Liaison Representatives, who are also state employees, serve as the NAPIAP representatives of their states to express state and local concerns on pesticide issues and research needs. They provide available biological, environmental, pesticide use, and economic data requested by the Technical Advisory Group and/or the Steering Committee.

ERS' REVIEW OF EPA PROPOSALS

The Economic Research Service, as part of its overall mission, evaluates the economic impact of pending EPA actions or regulations on food production and on the agricultural economy. Most of ERS' activity concerning EPA regulations has been in the pesticide area. According to ERS, its work, which is carried out in cooperation with other USDA agencies and states as part of NAPIAP, is to demonstrate to EPA and others the economic importance of the pesticides to producers and consumers.

ERS officials told us that ERS does work relating to EPA regulations and programs in the following ways:

- responds to proposed EPA pesticide regulatory actions by participating in pesticide benefit assessments or commenting on EPA proposals;

- prepares self-initiated studies of the impacts of pesticide regulations on the agricultural sector and consumers;
- responds to EPA regarding water quality or other nonpesticide regulations affecting agriculture;
- prepares self-initiated studies on the impact of other nonpesticide EPA regulations on the agricultural sector and consumers; and
- funds data collection, through USDA's National Agricultural Statistics Service, to support regulatory impact assessment.

ERS contributes to the NAPIAP process by participating in NAPIAP pesticide benefit assessments and commenting on EPA proposals and related analyses. It typically plans, helps coordinate and implement, and summarizes and publishes the economic impact evaluations for all USDA/state pesticide assessments. ERS is also the source of the basic pesticide use, cost, and productivity data on which the pesticide assessment activities rely.

ERS officials told us that ERS does self-initiated studies in anticipation of EPA regulatory actions, not in response to any specific EPA proposal. The purpose of these studies is to establish an information and research base that can be used to evaluate issues related to the pesticide regulatory process or pest control practices.

ERS also provides written comments on EPA proposals relating to EPA's special review process for pesticides, as well as other areas, such as endangered species and water quality.

ERS reimburses the National Agricultural Statistics Service for collecting pesticide use data, which are essential to assessing the risks and benefits of pesticides. Such data are used to determine the extent of exposure to the pesticide and to determine historical use patterns and trends.

Although consumers and consumer groups are not directly involved in ERS' economic analyses, ERS considers in its studies the impacts of EPA's proposals on consumer prices and on quality and quantity of foods.

SECTION 4

USDA AND EPA PESTICIDE STAFFING AND BUDGET

SUMMARY

USDA's NAPIAP had expenditures of about \$5.2 million for fiscal year 1988. ERS had

- about 6 staff years involved with analysis of EPA proposals during fiscal year 1988 and
- estimated fiscal year 1988 expenditures of \$650,000 relating to EPA proposals.

OPP's Biological and Economic Analysis Division, which is responsible for conducting EPA's analyses of pesticide use and economic benefits, had

- 87 full-time employees on September 30, 1988, and
- fiscal year 1988 operating costs of about \$6.8 million.

About half of the division's employees and costs were used for making benefit assessments.

NAPIAP BUDGET

According to USDA's Office of Budget and Program Analysis, NAPIAP expenditures totaled about \$5.2 million for fiscal year 1988. Table 4.1 shows the fiscal year 1988 expenditures of each of the eight USDA agencies involved with NAPIAP.

Table 4.1: Fiscal Year 1988 Expenditures of USDA's NAPIAP

Dollars in Thousands

<u>Agency</u>	<u>Amount</u>
Animal and Plant Health Inspection Service	\$ 0a
Agricultural Research Service	603
Cooperative State Research Service	1,866
Economic Research Service	375
Extension Service	1,633
Foreign Agricultural Service	0a
Forest Service	719
Soil Conservation Service	<u>0a</u>
Total	<u>\$5,196</u>

^aAgency does not identify funds designated for NAPIAP but supports the program in an advisory role.

Source: Office of Budget and Program Analysis, USDA.

ERS STAFFING AND BUDGET USED TO ANALYZE EPA PROPOSALS

According to ERS, during fiscal year 1988, ERS had two agricultural economists working full-time on pesticide benefit assessments and a few other staff working part-time for about an additional 4 staff years.

ERS officials told us that the ERS funds earmarked in the appropriations acts for analysis of EPA proposals were used to pay salaries of the ERS agricultural economists and clerical personnel involved in analyzing EPA proposals and to reimburse USDA's National Agricultural Statistics Service for collecting pesticide use data. According to the officials, ERS has not used funds to support non-ERS economists to conduct assessments of EPA pesticide regulatory proposals.

Table 4.2 shows ERS' estimated expenditures related to EPA proposals for fiscal years 1985 through 1988.

Table 4.2: ERS' Estimated Expenditures Relating to EPA Proposals, Fiscal Years 1985-88

<u>Fiscal year</u>	<u>Amount</u>
1985	\$ 600,000
1986	600,000
1987	550,000
1988	<u>650,000</u>
Total	<u>\$2,400,000</u>

Source: Data supplied by ERS.

According to ERS, its estimates represent expenditures associated with database development, economic modeling, and analyses related to EPA proposals.

EPA PESTICIDE STAFFING AND BUDGET

EPA's Office of Pesticide Programs is responsible for administering FIFRA. OPP has the statutory responsibility for preparing an analysis of the risks and benefits of a pesticide that is subject to EPA's special review process. Within OPP, the Biological and Economic Analysis Division is responsible for conducting analyses of pesticide use and economic benefits. Although the activities of this division are not strictly comparable to those of NAPIAP, both organizations are concerned with pesticide use and benefits. According to EPA officials, the Biological and Economic Analysis Division had 87 full-time employees on September 30, 1988, and its fiscal year 1988 operating costs totaled about \$6.8 million. Division officials estimated that half of the division's employees and costs were used for making benefit assessments.

Two other OPP divisions--Environmental Fate and Effects Division and Health Effects Division--perform risk assessments on pesticide uses.

SECTION 5

ERS/NAPIAP IMPACT ON EPA ACTIONS

SUMMARY

According to EPA officials, ERS/NAPIAP had limited impact on EPA pesticide regulatory proposals during fiscal years 1985 through 1988--the period covered by our review. During that period, EPA had the responsibility for preparing risk and benefit analyses for pesticides subject to EPA's special review process.

ERS/NAPIAP's primary role was to comment on EPA proposals and related analyses. During fiscal years 1985 through 1988, EPA asked USDA for comments on 15 pesticides whose registrations EPA was proposing to change or cancel. NAPIAP provided comments to EPA on all 15 proposals. The comments ranged from six instances in which NAPIAP had no objection to EPA's proposed action to four instances in which it opposed EPA's proposed action to cancel or restrict certain uses of the pesticides.

ERS provided written comments for NAPIAP's consideration in responding to EPA for 7 of the 15 pesticides. We selected four for detailed review. ERS officials said that ERS did not respond to the EPA proposals on some pesticides because either the pesticides were not important to agriculture or ERS did not conduct an analysis because no NAPIAP assessment team was assembled.

EPA officials said that ERS/NAPIAP had limited impact on EPA actions on three of the four pesticides. For the other pesticide, the officials said that ERS/NAPIAP contributed valuable and timely data as part of a joint USDA/state/EPA pesticide benefit assessment team.

ERS and NAPIAP officials said that they believed that ERS' analyses and comments have been more useful to EPA than indicated.

ERS INPUTS FOR SELECTED EPA PROPOSALS

As pointed out in section 3, ERS' work relating to analysis of EPA proposals is carried out in cooperation with other USDA agencies and states as part of NAPIAP. Thus, a discussion of ERS' contributions and impact on EPA actions necessarily includes NAPIAP.

We reviewed the NAPIAP Coordinator's files and identified the written documentation pertaining to ERS. We also reviewed the EPA Office of Pesticide Programs' files and identified the written documentation from ERS/NAPIAP. However, the discussion of ERS/NAPIAP's impact on EPA is based primarily on EPA officials' views regarding (1) ERS/NAPIAP's overall contributions relating to EPA's special review process and (2) ERS/NAPIAP's specific contributions relating to four selected pesticides undergoing the special review process.

ERS/NAPIAP'S OVERALL CONTRIBUTIONS TO EPA'S SPECIAL REVIEW PROCESS

The Chief of EPA's Economic Analysis Branch, Office of Pesticide Programs, told us that EPA has relied on its own staff, cooperative agreements with state universities, and contractors as primary sources for collection and analysis of pesticide benefit data for use during its special review process, but that USDA, states, and user groups are also sources of information from time to time when they are responsive with the types of data needed and when they provide the data to EPA on schedule. The Chief also said that EPA staff members draft the risk and benefit sections of decision documents, such as PD 2/3s, which announce EPA's proposed decisions, but that cooperators, contractors, and, to some degree, USDA may have drafted preliminary benefit analysis sections that EPA has accepted and included in its records as the basis for benefit findings that support decisions. As to whether EPA could prepare its analyses without ERS/NAPIAP assistance, the Chief said that EPA can and does conduct, in a majority of cases, benefit analyses in support of special review decisions with little or no such assistance.

The Chief said that NAPIAP's principal contribution is its official comments on EPA regulatory proposals pursuant to FIFRA. He said that EPA relies on NAPIAP to do this, and it generally does so in a timely manner. Beyond these comments, EPA relies on substantive and timely inputs from NAPIAP a relatively small fraction of the time. In recent years, it would be about 25 percent or less of the time for individual pesticides, according to the Chief. The Chief said, however, that EPA and ERS employees regularly communicate informally on pesticide and other matters and that not all ERS contributions are documented in agency records.

The Chief said that, in his opinion, the overall quality of NAPIAP analyses or studies has been uneven. Over the years, he said, EPA has found many of the NAPIAP assessment team reports to be lacking in usefulness. He said that his sense was that ERS analysts have objectively and vigorously analyzed issues before them, but that the NAPIAP benefit assessment documents included a lot of inputs and conclusions from other USDA agencies and the states, which EPA often found to be less than objective or fully supported by data or reasonable opinions.

ERS officials and the NAPIAP Coordinator pointed out that because of incomplete or unavailable pesticide use data, NAPIAP benefit assessments must sometimes rely on the judgment and estimates provided by experts knowledgeable about various cropping practices and pesticide use.¹

EPA Request for USDA Comments

Data provided by the Chief of OPP's Special Review Branch showed that during fiscal years 1985 through 1988, EPA notified USDA of 15 pesticides whose registrations EPA was proposing to cancel or modify:

-- Alachlor	-- Diazinon
-- Aldicarb	-- Dicofol
-- Cadmium	-- Dinocap
-- Captan	-- Dinoseb
-- Carbon Tetrachloride	-- Inorganic Arsenicals
-- Coal tar/Creosote	-- Pentachlorophenol
-- Cyanazine	-- Tributyltins
-- Daminozide	

Special Review Pesticides ERS/NAPIAP Commented On

Our review of the NAPIAP Coordinator's files showed that NAPIAP provided written comments to EPA for all 15 pesticides whose registrations EPA was proposing to change or cancel. The comments

¹A 1988 report, Agricultural Benefits Derived From Pesticide Use: A Study of the Assessment Process, discusses problems, issues, and recommended improvements in the NAPIAP process. The report, which we did not evaluate, is based on a study funded through USDA and carried out under a cooperative agreement with The Ohio State University.

ranged from six cases in which NAPIAP had no objection to EPA's proposed action to four cases in which it opposed EPA's proposed action to cancel or restrict certain uses of the pesticides. For two of the remaining five pesticides, NAPIAP informed EPA that it had no comments, and on the other three pesticides, it said that it had previously provided comments or studies to EPA.

We selected for detailed review the four pesticides--alachlor, aldicarb, captan, and daminozide--on which, according to the Associate Director of ERS' Resources and Technology Division, ERS had provided written comments for NAPIAP's consideration in responding to EPA. We asked EPA officials to comment on the impact on EPA of ERS/NAPIAP's contributions on these four pesticides.

According to the NAPIAP Coordinator, ERS reviewed the EPA proposals and related analyses for each of the 15 pesticides. In reviewing the NAPIAP Coordinator's files, we noted that ERS provided written comments for NAPIAP's consideration for three additional pesticides, bringing the total to seven, and that ERS informed the Coordinator that it had no adverse comments on three more pesticides. For the remaining five pesticides, the Coordinator's files did not contain documentation that ERS provided comments. ERS officials said that ERS did not respond to some pesticides because either the pesticides were not important to agriculture or ERS did not conduct an analysis because no NAPIAP assessment team was assembled.

According to the Chief of OPP's Economic Analysis Branch, the four pesticides we selected for detailed review were among those included in EPA's fiscal year 1985 special review schedule on which an effort was made to recruit NAPIAP inputs. The Chief said that EPA prepared detailed planning documents indicating the data needs and the schedule suggested to be met by NAPIAP. He said that EPA held meetings with USDA in late 1984 to discuss these data needs.

IMPACT ON EPA OF ERS/NAPIAP'S CONTRIBUTIONS

We asked the Chief of OPP's Economic Analysis Branch and the lead analysts for the pesticides within the Branch how ERS/NAPIAP's contributions had affected EPA actions for each of the four pesticides we had selected for detailed review. For three of the pesticides, the EPA officials said that ERS/NAPIAP had limited impact on the EPA proposals. According to the officials, ERS/NAPIAP provided some useful comments on these three pesticides, but limited analytical effort. For the other pesticide, the officials said that ERS/NAPIAP contributed a lot of credible, valuable, and timely data as part of a joint USDA/state/EPA pesticide benefit assessment and that the assessment team's analyses were the foundation for the benefits documents that EPA included in its PD 2/3.

OBSERVATIONS

Our discussions with EPA officials and our review of documentation relating to the four pesticides we reviewed in detail indicate that, for three of the four pesticides, ERS/NAPIAP had limited impact on EPA pesticide regulatory proposals. During fiscal years 1985 through 1988, the period on which we focused our review, EPA had the statutory responsibility for preparing risk and benefit analyses for pesticides for which it considered changing or canceling registrations, and it conducted the analyses with little or no ERS/NAPIAP assistance. At the same time, ERS, which had few resources allocated for analyzing EPA proposals, was responsible primarily for providing comments to NAPIAP on the EPA proposals and related analyses. Also, ERS regularly communicated informally with EPA on pesticide and other matters and carried out self-initiated studies and prepared responses on EPA activities related to such areas as water quality and nonpesticide regulations affecting agriculture.

VIEWS OF AGENCY OFFICIALS

USDA and EPA officials reviewed drafts of this briefing report. However, as agreed with your office, we did not obtain formal agency comments. ERS officials and USDA's NAPIAP Coordinator expressed concern that our review focused on EPA pesticide proposals and did not fully consider ERS' impact on EPA proposals in other areas, such as water quality and nonpesticide proposals. The USDA officials also said they believed that ERS' analyses and comments have been more useful to EPA than the draft report indicated and that ERS' analyses have had a significant impact on the pesticide regulatory process. The USDA officials, as well as the EPA officials, also suggested technical changes. We revised the report to more precisely state the focus of our review and incorporated the technical changes where appropriate.

MAJOR CONTRIBUTORS TO THIS BRIEFING REPORT

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION
WASHINGTON, D.C.

John W. Harman, Director, Food and Agriculture Issues
(202) 275-5138
William E. Gahr, Associate Director
Richard B. Shargots, Evaluator-in-Charge
Shirley Perry, Writer-Editor

(097749)

**United States
General Accounting Office
Washington, D.C. 20548**

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